

## Amendments to the Claims

This listing of claims supersedes all prior listing of claims.

### Listing of Claims:

1. (currently amended) A method for establishing headroom to provide margin in determining available transmit power value for a mobile station operating in a wireless communication system comprising the steps of:  
determining a communication channel variance condition, wherein the communication channel variance condition is at least one of a primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval; and  
establishing a headroom value based on the communication channel variance condition.
2. (original) A method according to claim 1 wherein a mobile station performs the steps of determining and establishing.
3. (original) A method according to claim 2 wherein the mobile station determines a maximum data rate based on the headroom value and sends the maximum data rate to a base station.
4. (original) A method according to claim 2 wherein the mobile station determines a maximum data rate based on the headroom value and sends a rate adjustment request to a base station.
5. (original) A method according to claim 2 further comprising the steps of:  
detecting a battery condition of the mobile station; and  
modifying the headroom value based on the battery condition.

6. (original) A method according to claim 5 wherein the step of modifying the headroom value based on the battery condition comprises:
  - determining if the battery condition relates to a low battery level; and
  - if the battery condition relates to a low battery level, increasing the headroom value.
7. (original) A method according to claim 2 wherein the step of determining a communication channel variance condition includes measuring a variance in a primary pilot power.
8. (original) A method according to claim 1 wherein a base station performs the steps of determining and establishing.
9. (original) A method according to claim 8 wherein the step of determining a communication channel variance condition includes examination of an inner loop power control bit stream.
10. (original) A method according to claim 8 further comprising the step of:
  - sending the headroom value to the mobile station.
11. (original) A method according to claim 8 further comprising the step of:
  - determining a data rate assignment for a mobile station using the headroom value and sending the data rate assignment to the mobile station.
12. (currently amended) A mobile station comprising:
  - means for determining a communication channel variance condition, wherein the communication channel variance condition is at least one of a primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval; and
  - means for establishing a headroom value based on the communication channel variance condition.

13. (original) A mobile station according to claim 12 further comprising:  
means for determining a maximum data rate based on the headroom value; and  
means for sending the maximum data rate to a base station.
14. (original) A mobile station according to claim 12 further comprising:  
means for determining a maximum data rate based on the headroom value; and  
means for sending a rate adjustment request to a base station.
15. (original) A mobile station according to claim 12 further comprising:  
means for detecting a battery condition of the mobile station; and  
means for modifying the headroom value based on the battery condition.
16. (currently amended) A wireless communication system comprising:  
a base station;  
at least one mobile station;  
means for determining a communication channel variance condition, wherein the communication channel variance condition is at least one of a primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval; and  
means for establishing a headroom value based on the communication channel variance condition.
17. (original) A wireless communication system according to claim 16 further comprising:  
means for determining a data rate based on the headroom value.
18. (original) A wireless communication system according to claim 17 further comprising:  
means for sending the data rate between the base station and said at least one mobile station.

19. (original) A wireless communication system according to claim 16 further comprising:  
means for determining a battery condition of said at least one mobile station; and  
means for modifying the headroom value based on the battery condition.
20. (original) A wireless communication system according to claim 19 further comprising:  
means for determining a data rate based on the headroom value; and  
means for sending the data rate between said at least one mobile station and the base station.